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EXAMINER	
MILORD, MARCEAU	
ART UNIT	PAPER NUMBER
2618	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	**Application No.**	**Applicant(s)**	
	10/737,118	MATSUNAGA, YASUHIKO	
	Examiner	**Art Unit**	
	Marceau Milord	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 June 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3,6-17,20,23-33,35,36,38-40 and 42-46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *3 and 6-10* is/are allowed.

6)☒ Claim(s) *11-17,20,23-33,35,36,38-40 and 42-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 38-40, 42-46 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 38-40, 42-46 call for a "computer readable program". Claims 38-40, 42-46 lack the proper preamble necessary for a statutory computer program claim. See MPEP 2100 for guidance on computer related invention. In claims 38-40, the Applicant claims a computer readable program corresponding to a computer program. The claim should define a statutory subject matter (i.e., a process, a machine, a manufacture, composition of matter, or improvement thereof). Benson, 409 U.S. at 71-72, 175 USPQ at 676; cf. Dihr, 450 U.S. at 187, 209 USPQ at 8. Those are nonstatutory because the claims do not provide a transformation or physically in associated with software application to perform by devices or systems. Therefore the claim(s) that claimed such as "A computer readable program" of operating a computer without transformation or physically in associated with software application to perform by devices or systems" is non-statutory.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 31 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 32 depends on claim 31, is also rejected for same reason.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 11-17, 20, 23-30, 33, 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takao et al (US Patent No 6871071 B2) in view of Brouwer (US Patent No 6799045 B1)

Regarding claims 11-13, Takao et al discloses a radio resource management method (figs. 1-3) comprising the steps of: detecting (32 or 31 of figs. 1 and 6) the occurrence of interference between service areas provided by plural radio base stations (21 or 22 of fig. 1 and fig. 6;col. 3, line 44- col. 4, line 16; col. 7, line 59-col. 8, line 33) and controlling (RNC of figs. 1 and 6) transmission power (col. 9, line 42- col. 10, line 55; col. 11, line 65; col. 19, line 8- col. 20, line 45).

However, Takao et al does not specifically disclose the steps of controlling transmission power of a common control signal, which governs a scope of a service area that a radio base station forms, for interference suppression in response to said occurrence of interference between service areas provided by plural radio base stations; detecting the occurrence of interference based on radio link quality information notified from each of said radio base stations.

On the other hand, Brouwer, from the same field of endeavor, discloses the steps of controlling transmission power of a common control signal, which governs a scope of a service area that a radio base station forms, for interference suppression in response to said occurrence of interference between service areas provided by plural radio base stations; detecting the occurrence of interference based on radio link quality information notified from each of said radio base stations (col. 9, line 42- col. 10, line 55; col. 11, line 65; col. 19, line 8- col. 20, line 45).

Brouwer shows in figure 6, a radio network controller that receives measurement reports from radio base stations including periodic uplink interference and downlink power measurements, where each radio network controller includes a network interface for interfacing communications with various base stations (col. 6, lines 50-61; col. 5, lines 24-52; col. 8, lines

22-58). An admission/congestion controller also responds to requests to allocate new radio resources and takes action where necessary to regulate traffic conditions in the cell if an overload or congested condition is detected (it means :detect interference and suppress interference). The transmit power controller performs power control operations based on messages received from the RNC and/or from mobile stations. One or more signal-to-interference ratio detectors may be used to detect the SIR of signals received from mobile stations. The transmit power control commands may include one or more bits which indicate a desired increase in transmit power, a desired decrease in transmit power (it means: control transmission power of a common control signal, which governs a scope of a service area that a radio base station forms). The comparator determines that the transmit power control commands are reliable. A threshold detector detects the output from the counter and compares it with a threshold. If the threshold has been exceeded, a signal may be generated indicating a condition requiring radio network attention and/or response. The condition may be one of congestion, too high an interference value or other condition requiring possible action by the radio network. The threshold detector detects if the measured uplink power or interference level at the base station exceeds a threshold for the cell (figs. 5-9;col. 10, lines 45-67; col. 11, lines 1-63; col. 12, lines 19-42; col. 13, lines 12-33). It is clear that Brouwer discloses the steps of controlling transmission power of a common control signal, which governs a scope of a service area that a radio base station forms, for interference suppression in response to said occurrence of interference between service areas provided by plural radio base stations; detecting the occurrence of interference based on radio link quality information notified from each of said radio base stations. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of

Brouwer to the communication system of Takao in order to enhances the accuracy of the transmit power control commands metric, as well as cell control operations based upon that transmit power control commands metric.

Regarding claims 14-15, Takao et al discloses a radio base station (figs. 1, 3, 6; 21 or 22 of figs. 1, 3, 6), comprising a detector for detecting (32 or 31 of figs. 1 and 6) the occurrence of interference between service areas provided by plural radio base stations (21 or 22 of fig. 1 and fig. 6; col. 3, line 44- col. 4, line 16; col. 7, line 59-col. 8, line 33) and controller for controlling (RNC of figs. 1 and 6) transmission power (21 and 22 of figs. 1 and 6; col. 9, line 42- col. 10, line 55; col. 11, line 65; col. 19, line 8- col. 20, line 45).

However, Takao et al does not specifically disclose the steps of controlling transmission power of a common control signal which governs a scope of a service area that a radio base station forms, to suppress interference autonomously in response to said occurrence of interference between plural service areas.

On the other hand, Brouwer, from the same field of endeavor, discloses the features of a controller for controlling transmission power of a common control signal which governs a scope of a service area that a radio base station forms, to suppress interference autonomously in response to said occurrence of interference between plural service areas col. 9, line 42- col. 10, line 55; col. 11, line 65; col. 19, line 8- col. 20, line 45).

Brouwer shows in figure 6, a radio network controller that receives measurement reports from radio base stations including periodic uplink interference and downlink power measurements, where each radio network controller includes a network interface for interfacing communications with various base stations (col. 6, lines 50-61; col. 5, lines 24-52; col. 8, lines

22-58). An admission/congestion controller also responds to requests to allocate new radio resources and takes action where necessary to regulate traffic conditions in the cell if an overload or congested condition is detected (it means :detect interference and suppress interference). The transmit power controller performs power control operations based on messages received from the RNC and/or from mobile stations. One or more signal-to-interference ratio detectors may be used to detect the SIR of signals received from mobile stations. The transmit power control commands may include one or more bits which indicate a desired increase in transmit power, a desired decrease in transmit power (it means: control transmission power of a common control signal, which governs a scope of a service area that a radio base station forms). The comparator determines that the transmit power control commands are reliable. A threshold detector detects the output from the counter and compares it with a threshold. If the threshold has been exceeded, a signal may be generated indicating a condition requiring radio network attention and/or response. The condition may be one of congestion, too high an interference value or other condition requiring possible action by the radio network. The threshold detector detects if the measured uplink power or interference level at the base station exceeds a threshold for the cell (figs. 5-9;col. 10, lines 45-67; col. 11, lines 1-63; col. 12, lines 19-42; col. 13, lines 12-33). It is clear that Brouwer discloses the steps of controlling transmission power of a common control signal, which governs a scope of a service area that a radio base station forms, for interference suppression in response to said occurrence of interference between service areas provided by plural radio base stations; detecting the occurrence of interference based on radio link quality information notified from each of said radio base stations. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of

Brouwer to the communication system of Takao in order to enhances the accuracy of the transmit power control commands metric, as well as cell control operations based upon that transmit power control commands metric.

Regarding claim 17, Takao et al discloses a radio resource method (figs. 1-3; 12 of figs. 1 and 3) comprising the steps of: receiving information of radio link qualities from plural radio terminals (32 or 31 of figs. 1 and 6; col. 3, line 44- col. 4, line 16; col. 7, line 59-col. 8, line 33) and controlling (RNC of figs. 1 and 6) a load, being a radio terminal accommodated in a radio base station (21 and 22 of figs. 1 and 6; col. 9, line 42- col. 10, line 55; col. 11, line 65; col. 19, line 8- col. 20, line 45).

However, Takao et al does not specifically disclose the features of a radio link quality information including information on link utilization to a radio base station in communication with each of the radio terminals, and wherein the load distributed control is based on the sum of sets of the link utilization information collected from respective radio terminals for each radio base station.

On the other hand, Brouwer, from the same field of endeavor, discloses the features of a radio link quality information including information on link utilization to a radio base station in communication with each of the radio terminals, and wherein the load distributed control is based on the sum of sets of the link utilization information collected from respective radio terminals for each radio base station (col. 9, line 42- col. 10, line 55; col. 11, line 65; col. 19, line 8- col. 20, line 45).

Brouwer shows in figure 6, a radio network controller that receives measurement reports from radio base stations including periodic uplink interference and downlink power

measurements, where each radio network controller includes a network interface for interfacing communications with various base stations (col. 6, lines 50-61; col. 5, lines 24-52; col. 8, lines 22-58). An admission/congestion controller also responds to requests to allocate new radio resources and takes action where necessary to regulate traffic conditions in the cell if an overload or congested condition is detected (it means :detect interference and suppress interference). The transmit power controller performs power control operations based on messages received from the RNC and/or from mobile stations. One or more signal-to-interference ratio detectors may be used to detect the SIR of signals received from mobile stations. The transmit power control commands may include one or more bits which indicate a desired increase in transmit power, a desired decrease in transmit power (it means: control transmission power of a common control signal, which governs a scope of a service area that a radio base station forms). The comparator determines that the transmit power control commands are reliable. A threshold detector detects the output from the counter and compares it with a threshold. If the threshold has been exceeded, a signal may be generated indicating a condition requiring radio network attention and/or response. The condition may be one of congestion, too high an interference value or other condition requiring possible action by the radio network. The threshold detector detects if the measured uplink power or interference level at the base station exceeds a threshold for the cell (figs. 5-9;col. 10, lines 45-67; col. 11, lines 1-63; col. 12, lines 19-42; col. 13, lines 12-33). It is clear that Brouwer discloses the steps of controlling transmission power of a common control signal, which governs a scope of a service area that a radio base station forms, for interference suppression in response to said occurrence of interference between service areas provided by plural radio base stations; detecting the occurrence of interference based on radio link quality

information notified from each of said radio base stations. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Brouwer to the communication system of Takao in order to enhances the accuracy of the transmit power control commands metric, as well as cell control operations based upon that transmit power control commands metric.

Regarding claim 20, Takao et al discloses a radio resource method (figs. 1-3; 12 of figs. 1 and 3) comprising: a receiver for receiving information of radio link qualities from plural radio terminals (32 or 31 of figs. 1 and 6; col. 3, line 44- col. 4, line 16; col. 7, line 59-col. 8, line 33) wherein said radio link quality information includes information on link utilization to a radio base station, which is in communication with each of said radio terminals (col. 9, line 42- col. 10, line 55; col. 11, line 65; col. 19, line 8- col. 20, line 45).

However, Takao et al does not specifically disclose the features of a controller for distributively controlling a load, being a radio terminal accommodated in a radio base station, based on the information of radio link qualities from plural radio terminals, said controller comprising means for distributively controlling a load based on the sum of sets of said link utilization information collected from respective radio terminals for each radio base station.

On the other hand, Brouwer, from the same field of endeavor, discloses the features of a controller for distributively controlling a load, being a radio terminal accommodated in a radio base station, based on the information of radio link qualities from plural radio terminals, said controller comprising means for distributively controlling a load based on the sum of sets of said link utilization information collected from respective radio terminals for each radio base station (col. 9, line 42- col. 10, line 55; col. 11, line 65; col. 19, line 8- col. 20, line 45).

Brouwer shows in figure 6, a radio network controller that receives measurement reports from radio base stations including periodic uplink interference and downlink power measurements, where each radio network controller includes a network interface for interfacing communications with various base stations (col. 6, lines 50-61; col. 5, lines 24-52; col. 8, lines 22-58). An admission/congestion controller also responds to requests to allocate new radio resources and takes action where necessary to regulate traffic conditions in the cell if an overload or congested condition is detected (it means :detect interference and suppress interference). The transmit power controller performs power control operations based on messages received from the RNC and/or from mobile stations. One or more signal-to-interference ratio detectors may be used to detect the SIR of signals received from mobile stations. The transmit power control commands may include one or more bits which indicate a desired increase in transmit power, a desired decrease in transmit power (it means: control transmission power of a common control signal, which governs a scope of a service area that a radio base station forms). The comparator determines that the transmit power control commands are reliable. A threshold detector detects the output from the counter and compares it with a threshold. If the threshold has been exceeded, a signal may be generated indicating a condition requiring radio network attention and/or response. The condition may be one of congestion, too high an interference value or other condition requiring possible action by the radio network. The threshold detector detects if the measured uplink power or interference level at the base station exceeds a threshold for the cell (figs. 5-9;col. 10, lines 45-67; col. 11, lines 1-63; col. 12, lines 19-42; col. 13, lines 12-33). It is clear that Brouwer discloses the steps of controlling transmission power of a common control signal, which governs a scope of a service area that a radio base station forms, for interference

suppression in response to said occurrence of interference between service areas provided by plural radio base stations; detecting the occurrence of interference based on radio link quality information notified from each of said radio base stations. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Brouwer to the communication system of Takao in order to enhances the accuracy of the transmit power control commands metric, as well as cell control operations based upon that transmit power control commands metric.

Regarding claim 23, Takao et al discloses a radio resource management method (figs. 1-3; 12 of figs. 1 and 3) comprising the steps of receiving information of radio link qualities from plural radio terminals (32 or 31 of figs. 1 and 6; col. 3, line 44- col. 4, line 16; col. 7, line 59-col. 8, line 33) and a controller for controlling power (RNC of figs. 1 and 6) of a radio base station (21 and 22 of figs. 1 and 6; col. 9, line 42- col. 10, line 55; col. 11, line 65; col. 19, line 8- col. 20, line 45).

However, Takao et al does not specifically disclose the steps of controlling transmission power of a radio bases station based on the information of radio link qualities from plural radio terminals.

On the other hand, Brouwer, from the same field of endeavor, discloses the steps of controlling transmission power of a radio bases station based on the information of radio link qualities from plural radio terminals (col. 9, line 42- col. 10, line 55; col. 11, line 65; col. 19, line 8- col. 20, line 45).

Brouwer shows in figure 6, a radio network controller that receives measurement reports from radio base stations including periodic uplink interference and downlink power

measurements, where each radio network controller includes a network interface for interfacing communications with various base stations (col. 6, lines 50-61; col. 5, lines 24-52; col. 8, lines 22-58). An admission/congestion controller also responds to requests to allocate new radio resources and takes action where necessary to regulate traffic conditions in the cell if an overload or congested condition is detected (it means :detect interference and suppress interference). The transmit power controller performs power control operations based on messages received from the RNC and/or from mobile stations. One or more signal-to-interference ratio detectors may be used to detect the SIR of signals received from mobile stations. The transmit power control commands may include one or more bits which indicate a desired increase in transmit power, a desired decrease in transmit power (it means: control transmission power of a common control signal, which governs a scope of a service area that a radio base station forms). The comparator determines that the transmit power control commands are reliable. A threshold detector detects the output from the counter and compares it with a threshold. If the threshold has been exceeded, a signal may be generated indicating a condition requiring radio network attention and/or response. The condition may be one of congestion, too high an interference value or other condition requiring possible action by the radio network. The threshold detector detects if the measured uplink power or interference level at the base station exceeds a threshold for the cell (figs. 5-9;col. 10, lines 45-67; col. 11, lines 1-63; col. 12, lines 19-42; col. 13, lines 12-33). It is clear that Brouwer discloses the steps of controlling transmission power of a common control signal, which governs a scope of a service area that a radio base station forms, for interference suppression in response to said occurrence of interference between service areas provided by plural radio base stations; detecting the occurrence of interference based on radio link quality

information notified from each of said radio base stations. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Brouwer to the communication system of Takao in order to enhances the accuracy of the transmit power control commands metric, as well as cell control operations based upon that transmit power control commands metric.

Regarding claims 26-28, Takao et al discloses a radio resource management apparatus (figs. 1-3; 12 of figs. 1 and 3) comprising: a receiver for receiving information of radio link qualities from plural radio terminals (32 or 31 of figs. 1 and 6; col. 3, line 44- col. 4, line 16; col. 7, line 59-col. 8, line 33) and controller for controlling (RNC of figs. 1 and 6) transmission power of a radio base station (21 and 22 of figs. 1 and 6; col. 9, line 42- col. 10, line 55; col. 11, line 65; col. 19, line 8- col. 20, line 45).

However, Takao et al does not specifically disclose the steps of controlling transmission power of a radio base station based on the information of radio link qualities from plural radio base stations.

On the other hand, Brouwer, from the same field of endeavor, discloses the steps of controlling transmission power of a radio base station based on the information of radio link qualities from plural radio base stations (col. 9, line 42- col. 10, line 55; col. 11, line 65; col. 19, line 8- col. 20, line 45).

Brouwer shows in figure 6, a radio network controller that receives measurement reports from radio base stations including periodic uplink interference and downlink power measurements, where each radio network controller includes a network interface for interfacing communications with various base stations (col. 6, lines 50-61; col. 5, lines 24-52; col. 8, lines

22-58). An admission/congestion controller also responds to requests to allocate new radio resources and takes action where necessary to regulate traffic conditions in the cell if an overload or congested condition is detected (it means :detect interference and suppress interference). The transmit power controller performs power control operations based on messages received from the RNC and/or from mobile stations. One or more signal-to-interference ratio detectors may be used to detect the SIR of signals received from mobile stations. The transmit power control commands may include one or more bits which indicate a desired increase in transmit power, a desired decrease in transmit power (it means: control transmission power of a common control signal, which governs a scope of a service area that a radio base station forms). The comparator determines that the transmit power control commands are reliable. A threshold detector detects the output from the counter and compares it with a threshold. If the threshold has been exceeded, a signal may be generated indicating a condition requiring radio network attention and/or response. The condition may be one of congestion, too high an interference value or other condition requiring possible action by the radio network. The threshold detector detects if the measured uplink power or interference level at the base station exceeds a threshold for the cell (figs. 5-9;col. 10, lines 45-67; col. 11, lines 1-63; col. 12, lines 19-42; col. 13, lines 12-33). It is clear that Brouwer discloses the steps of controlling transmission power of a common control signal, which governs a scope of a service area that a radio base station forms, for interference suppression in response to said occurrence of interference between service areas provided by plural radio base stations; detecting the occurrence of interference based on radio link quality information notified from each of said radio base stations. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of

Brouwer to the communication system of Takao in order to enhances the accuracy of the transmit power control commands metric, as well as cell control operations based upon that transmit power control commands metric.

Regarding claims 29-30, Takao et al discloses a radio resource management method (figs. 1-3; 12 of figs. 1 and 3) comprising the steps of: receiving information of radio link qualities from plural radio terminals (32 or 31 of figs. 1 and 6; col. 3, line 44- col. 4, line 16; col. 7, line 59-col. 8, line 33) and controlling (RNC of figs. 1 and 6) changing a frequency used by a radio base station (21 and 22 of figs. 1 and 6; col. 9, line 42- col. 10, line 55; col. 11, line 65; col. 19, line 8- col. 20, line 45).

However, Takao et al does not specifically disclose the features of controllably changing a frequency used by a radio base station based on the information of radio link qualities from plural radio terminals.

On the other hand, Brouwer, from the same field of endeavor, discloses the features of controllably changing a frequency used by a radio base station based on the information of radio link qualities from plural radio terminals (col. 9, line 42- col. 10, line 55; col. 11, line 65; col. 19, line 8- col. 20, line 45).

Brouwer shows in figure 6, a radio network controller that receives measurement reports from radio base stations including periodic uplink interference and downlink power measurements, where each radio network controller includes a network interface for interfacing communications with various base stations (col. 6, lines 50-61; col. 5, lines 24-52; col. 8, lines 22-58). An admission/congestion controller also responds to requests to allocate new radio resources and takes action where necessary to regulate traffic conditions in the cell if an overload

or congested condition is detected (it means :detect interference and suppress interference). The transmit power controller performs power control operations based on messages received from the RNC and/or from mobile stations. One or more signal-to-interference ratio detectors may be used to detect the SIR of signals received from mobile stations. The transmit power control commands may include one or more bits which indicate a desired increase in transmit power, a desired decrease in transmit power (it means: control transmission power of a common control signal, which governs a scope of a service area that a radio base station forms). The comparator determines that the transmit power control commands are reliable. A threshold detector detects the output from the counter and compares it with a threshold. If the threshold has been exceeded, a signal may be generated indicating a condition requiring radio network attention and/or response. The condition may be one of congestion, too high an interference value or other condition requiring possible action by the radio network. The threshold detector detects if the measured uplink power or interference level at the base station exceeds a threshold for the cell (figs. 5-9;col. 10, lines 45-67; col. 11, lines 1-63; col. 12, lines 19-42; col. 13, lines 12-33). It is clear that Brouwer discloses the steps of controlling transmission power of a common control signal, which governs a scope of a service area that a radio base station forms, for interference suppression in response to said occurrence of interference between service areas provided by plural radio base stations; detecting the occurrence of interference based on radio link quality information notified from each of said radio base stations. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Brouwer to the communication system of Takao in order to enhances the accuracy of the

transmit power control commands metric, as well as cell control operations based upon that transmit power control commands metric.

Regarding claims 33, 35-36, Takao et al discloses a radio terminal (figs. 1-3; 32 or 31 of figs. 1 and 3) comprising: means (21 or 22 of figs. 1 and 3) for measuring a radio link quality and then notifying a radio resource management apparatus (12 of figs. 1 and 3) of radio link quality information being the measurement result, the notifying means performing a notifying operation at predetermined notification intervals (col. 9, line 42- col. 10, line 55; col. 11, line 65; col. 19, line 8- col. 20, line 45).

However, Takao et al does not specifically disclose the features of a means for responding distributed control indication for a load being a radio terminal accommodated in a radio base station, based on said radio link quality information, the distributed control indication being created from the radio resource management apparatus, and switching a radio base station to be connected.

On the other hand, Brouwer, from the same field of endeavor, discloses the features of a means for responding distributed control indication for a load being a radio terminal accommodated in a radio base station, based on said radio link quality information, the distributed control indication being created from the radio resource management apparatus, and switching a radio base station to be connected (col. 9, line 42- col. 10, line 55; col. 11, line 65; col. 19, line 8- col. 20, line 45).

Brouwer shows in figure 6, a radio network controller that receives measurement reports from radio base stations including periodic uplink interference and downlink power measurements, where each radio network controller includes a network interface for interfacing

communications with various base stations (col. 6, lines 50-61; col. 5, lines 24-52; col. 8, lines 22-58). An admission/congestion controller also responds to requests to allocate new radio resources and takes action where necessary to regulate traffic conditions in the cell if an overload or congested condition is detected (it means :detect interference and suppress interference). The transmit power controller performs power control operations based on messages received from the RNC and/or from mobile stations. One or more signal-to-interference ratio detectors may be used to detect the SIR of signals received from mobile stations. The transmit power control commands may include one or more bits which indicate a desired increase in transmit power, a desired decrease in transmit power (it means: control transmission power of a common control signal, which governs a scope of a service area that a radio base station forms). The comparator determines that the transmit power control commands are reliable. A threshold detector detects the output from the counter and compares it with a threshold. If the threshold has been exceeded, a signal may be generated indicating a condition requiring radio network attention and/or response. The condition may be one of congestion, too high an interference value or other condition requiring possible action by the radio network. The threshold detector detects if the measured uplink power or interference level at the base station exceeds a threshold for the cell (figs. 5-9;col. 10, lines 45-67; col. 11, lines 1-63; col. 12, lines 19-42; col. 13, lines 12-33). It is clear that Brouwer discloses the steps of controlling transmission power of a common control signal, which governs a scope of a service area that a radio base station forms, for interference suppression in response to said occurrence of interference between service areas provided by plural radio base stations; detecting the occurrence of interference based on radio link quality information notified from each of said radio base stations. Therefore, it would have been obvious

to one of ordinary skill in the art at the time the invention was made to apply the technique of Brouwer to the communication system of Takao in order to enhances the accuracy of the transmit power control commands metric, as well as cell control operations based upon that transmit power control commands metric.

Allowable Subject Matter

6. Claims 3, 6-10, are allowed.

Response to Arguments

7. Applicant's arguments with respect to claims 11-17, 20, 23-30, 33, 35-36 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marceau Milord whose telephone number is 571-272-7853. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/M. M./

Primary Examiner, Art Unit 2618

/Marceau Milord/

Primary Examiner, Art Unit 2618